Program of the 18th Symposium on Polar Meteorology and Glaciology, held at National Institute of Polar Research, Tokyo, July 18–19, 1995

I. Deep icecoring project at Dome Fuji and remote sensing (Yutaka AGETA)

1. Glaciological Research Activities of JARE-35. Hitoshi SHOJI, Takashi SAITO, Takeshi SAITO, Takayuki SHIRAIWA, Kotaro YOKOYAMA and Okitsugu WATANABE.
2. The Dome F deep drilling facility (JARE-35). Takeshi SAITO, Takayuki SHIRAIWA, Yuji TAGUCHI, Masashi ITO, Ichio OBINATA, Kazuhisa NAKAGAWA, Yuji KONISHI, Yoshiaki SATO, Hitoshi SHOJI, Kotaro YOKOYAMA and Okitsugu WATANABE.
3. Studies on Antarctic glaciers and ice sheet by interferometry SAR. Fumihiko NISHIO, Hiroshi KIMURA, Teruo FURUKAWA and Takashi MITOMI.
4. Stady on ice sheet around Belgica Mountains by ERS-1/SAR and Mos-1/MESSR imagery. Akira TAKAHASHI, Yoshiyuki FUJII, Teruo FURUKAWA and Kohei CHO.
5. Region segmentation of Antarctic satellite data by image feature. Ken-ichiro MURAMOTO, Takanobu TOKUNAGA, Kohki MATSUURA and Takashi YAMANOUCHI.
6. Tracking of large icebergs using SSM/I data. Nobuo SASAKI, Kohei CHO, Haruhisa SHIMODA and Toshifumi SAKATA.

II. Physics and chemistry of snow and ice (Takeo HONDOH)

7. Growth mechanism of plate-like ice crystals growing in air at a low temperature. Takehiko GONDA and Yuki MATSUURA.
8. Precise measurement of dielectric loss of ice at 5–40 GHz. Takeshi MATSUOKA, Shuji FUJITA, Shigenori MORISHIMA and Shinji MAE.
9. Measurements on the complex permitivity of acid-doped ice in HF band - A basic experiment for development of HF radio echo-sounder and data interpretation. Kenichi MATSUOKA, Shuji FUJITA, Takeshi MATSUOKA, Toshihiro ISHIDA, Shinji MAE and Takeo HONDOH.
10. Diffusion of noble gas molecules in ice crystals. Kouichi SATOH, Tsutomu UCHIDA, Takeo HONDOH and Shinji MAE.
11. Chemical reactions in polycrystalline ice. Norimichi TAKENAKA, Tohru DAIMON, Hiroshi BANDOW and Yasuaki MAEDA.

III. Climatology and meteorology (Hiroshi KANZAWA)

12. The behavior of the westerly jet and planetary waves in the stratospheric and mesospheric winter southern hemisphere observed by the Nimbus 6 PRM. Yuji MATSUZAKI and Masato SHIOTANI.
13. Seasonal change of the atmospheric heat budget over the sea ice area in Southern Hemisphere. Itaru OKADA and Takashi YAMANOUCHI.
14. Surface radiation observations at Syowa Station. Masamichi AONO and Susumu KANETO.
15. Measurement of particle size distribution in drifting snow. Konosuke SUGIURA, Koichi NISHIMURA, Norikazu MAENO and Tadashi KIMURA.

IV. Atmosphere (Shohei MURAYAMA)

16. Analysis of the meridional distribution of ozone based on ozone sonde data observed aboard the icebreaker SHIRASE. Rintaro OSHIMA and Masato SHIOTANI.
17. International regulations of production and consumption of stratospheric ozone depleting halocarbons and recent trends of their atmospheric concentrations in the Southern and Northern Hemispheres. Yoshihiro MAKIDE, Sakae TOYODA and Takeshi TOMINAGA.
18. Observation of stratospheric NO_2 at Syowa Station, Antarctica. Akane KAWAGUCHI, Yutaka KONDO, Makoto KOIKE, Hideaki NAKAJIMA, Shuhji AOKI, Takashi YAMANOUCHI, Ippei NAGAO, Kunimoto IWAI and Michihiro KOIDE.
19. Size distribution of aerosol particles over the West Pacific Ocean and the Antarctic Ocean. Kazuhiko MIURA, Kazuhide MATSUDA, Naoto TSUGE, Kazuma AOKI and Shigeru NAKAE.

20. Material circulation in the Antarctic atmosphere—Close coupling between stratosphere and boundary layer—. Masahiko HAYASHI.
21. Methanesultonic acid and sulfur cycle at Antarctic ice sheet. Kazuo OSADA and Masahiko HAYASHI.

V. Ice core analysis (Shuji FUJITA)

22. Development of automatic fabric analysis system for ice cores. Yun WANG, Nobuhiko AZUMA, Teruyoshi UMEMURA and Kumiko GOTO-AZUMA.
23. Non-destructive analysis of impurity concentration in ice. Morimasa TAKATA, Susumu NAKAMURA, Yoshiro ITO, Kumiko GOTO-AZUMA, Nobuhiko AZUMA and Teruyoshi UMEMURA.
24. Ice core analysis using the AC-ECM technique. Ken SUGIYAMA, Shuji FUJITA, Shinji MAE and Takeo HONDOH.
25. Development of high performance amplifire for ECM analysis in polar ice core and computer measuring system. Masayuki OHI, Hideki NARITA and Okitsugu WATANABE.
26. Variations of the CO_2, CH_4 and N_2O concentration and $\delta^{13}C$ value in the glacial period deduced from the South Yamato ice, Antarctica. Toshinobu MACHIDA, Takakiyo NAKAZAWA, Masayuki TANAKA, Hideki NARITA, Yoshiyuki FUJII, Shuhji AOKI and Okitsugu WATANABE.

VI. Ocean circulation and sea ice (Takatoshi TAKIZAWA)

27. A preliminary report on current moorings in the Antarctic divergence. Masaaki WAKATSUCHI.
28. A mechanism for seasonal variations in the Antarctic coastal ocean. Kay I. OHSHIMA.
29. Numerical investigation of the marginal ice zone using a simple ice-ocean coupled model. Yasushi FUKAMACHI.
30. Melting of a horizontal ice sheet floating on salt-stratified water. Wladyslaw RUDZINSKI and Masaaki WAKATSUCHI.
31. The origin of sea ice in the sea at Okhotsk. Jinro UKITA, Noriyuki TANAKA and Toshiyuki KAWAMURA.

Poster presentation-I

*Meteorology

32. Meteorological data of JARE-35, during oversnow traverses. Yuji TAGUCHI.
33. Preliminary study on the summer heat balance at Dome F, East Antarctica. Takayuki SHIRAIWA, Yuji TAGUCHI, Takashi SAITO, Hitoshi SHOJI, Kotaro YOKOYAMA and Okitsugu WATANABE.
34. Meteorological observations by data-logging automatic weather stations between Syowa Station and Dome Fuji. Hiroyuki ENOMOTO, Hideaki MOTOYAMA, Takayuki SHIRAIWA, Takao KAMEDA, Teruo FURUKAWA, Shuhei TAKAHASHI and Okitsugu WATANABE.
35. Warming at Syowa Station, Antarctica in winter due to synoptic scale disturbance. Nozomu NAITO and Hisafumi MURAMATSU.
36. UV irradiance observed at Syowa, Antarctica. Osamu IJIMA.
37. Blowing experiment at Halley station, Antarctica (STABLE, 1991). Koichi NISHIMURA, J.C.KING, S.D. MOBBS, J.C.R. HUNT.
38. On the estimation of precipitation rate at each altitude by a new analytical method for the meteorological radar echo (5). Masahiko HATANAKA, Yutaka YOSHIDA, Makoto WADA and Naohiko HIRASAWA.

*Ice core analysis

39. Comparison of the preservation of volcanic signals between Mizuho 700 m and H15 cores. Mika KOHNO, Takaaki FUKUOKA, Hideko YAMANOUCHI and Yoshiyuki FUJII.
40. Relationship between grain-and bubble sizes and $\delta^{18}O$ value under snow and ice densification process. Hideki NARITA, Takeo HONDOH and Okitsugu WATANABE.
41. Implication of relationship between concentration and $\delta^{13}C$ of atmospheric CO_2 after 1000 yrBP obtained from ice-core analyses. Kikuo KATO and Kaori KOMAKI.
42. Ice core analysis by using laser tomography. Tetsuya IKEDA, Michiko FUJII, Shinji MAE and Takeo HONDOH.

*Physics and chemistry of snow and ice

43. Dielectric anisotropy in ice crystal at LF, microwave and mm-wave —A physical property of ice necessary for the polarimetric- and multifreguency RES—. Shuji FUJITA, Shigenori MORISHIMA, Takeshi MATSUOKA and Shinji MAE.
44. Volatilization of solute in freezing-thawing process. Keiichi SATO, Norimichi TAKENAKA, Hiroshi BANDOW and Yasuaki MAEDA.

*Ice sheet dynamics

45. A relation between depth and age of large ice sheets. Atsushi MIYAMOTO and Takeo HONDOH.
46. On the rotation of the Antarctic ice sheet -An Hypothesis-. Yoshihiro TACHIBANA.

*Technology for snow and ice

47. Experiment on continous measurement of ice sheet surface with optical fiber gyro scope. Teruo FURUKAWA and Okitsugu WATANABE.
48. Model tests on a sublimation control of ice dome structures in a cold laboratory. Noriyuki KATSUYAMA and Toshio HANNUKI.
49. Numerical simulation on a failure of snow around shallow cavities by means of the distinct element method. Seiichi TAKAHASHI, Hiroki OHTSUKA and Toshio HANNUKI.

Poster presentation-II

*Snow and ice

50. Chemical component of surface snow along traverse route from coast to Dome Fuji, East Antarctica. Hideaki MOTOYAMA, Kokichi KAMIYAMA and Okitsugu WATANABE.
51. Depositional environment of snow along S16 to Dome Fuji, East Antarctica. Hideaki MOTOYAMA, Teruo FURUKAWA and Yoshiyuki FUJII.
52. Density and structure of the surface snow along the traverse route from S16–Dome F, East Antarctica. Takayuki SHIRAIWA, Hitoshi SHOJI, Takashi SAITO, Kotaro YOKOYAMA and Okitsugu WATANABE.
53. Hydrological observation of liquid phase discharge at Heito Glacier, East Antarctica. Takashi SAITO, Kotaro YOKOYAMA and Okitsugu WATANABE.
54. Ice flow derived from internal layers by ice radar. Hideo MAENO and Seiho URATSUKA.
55. Dynamical conditions at the base of the Shirase ice sheet derived from the force balance consideration. Renji NARUSE.

*Atmosphere

56. Ground-based remote sensing of ozone, nitrous oxide, methane and nitric acid with a tunable diode laser heterodyne spectrometer at Syowa Station, Antarctica. Michihiro KOIDE, Hiroshi FUKUNISHI, Shoichi OKANO and Makoto TAGUCHI.
57. Chemical compositions of aerosol particles in Syowa Station. Keiichiro HARA, Tadashi KIKUCHI, Keiichi FURUYA, Masahiko HAYASHI, Yasunobu IWASAKA and Yoshiyuki FUJII.
58. Seasonal Variations of sulfur compounds at Syowa Station, Antarctica. Ippei NAGAO, Seiji KOGA, Shuhji AOKI, Yoshiyuki FUJII and Hiroshi TANAKA.
59. Distributions of lipid class compounds in Antarctic aerosols collected at Syowa Station. Mutsumi NISHIKIORI, Kimitaka KAWAMURA and Masahiko HAYASHI.
60. Annual change of total ozone amounts at Syowa Station, Antarctica. Shigeru CHUBACHI.
61. Variation of the horizontal structure of the ozone hole eir Antarctica. Wakako SHIRATORI and Kohji KAWAHIRA.
62. Measurements of the oxygen isotopic ratio of atmospheric CO_2 at Syowa Station, Antarctica. Shohei MURAYAMA, Takakiyo NAKAZAWA, Shuhji AOKI, Masayuki TANAKA, Akira SHIMIZU, Shinji MORIMOTO, Sadao KAWAGUCHI and Masahiko HAYASHI.
63. Data of CO_2 concentrations in environmental air in Japan and chemical species analyses in Japan alps snow in the Nagano Prefecture. Yasuyuki FUTATSUGI, Bunbunosin TOMIYASU, Yoshimasa NIHEI, Okitsugu WATANABE and Kokichi KAMIYAMA.
64. Lidar measurements in 1994/1995 winter: Polar stratospheric clouds observed at Ny-Ålesund. Hiroshi ADACHI, Takashi SHIBATA, Yasunobu IWASAKA, Masahiko HAYASHI, Tetsu SAKAI, Masahiro NAGATANI, Motoo FUJIWARA, Kazumi SUSUMU, Yoshinobu NAKURA and R. NEUBER.

*Remote sensing

65. Temporal variations of ice sheet surface deduced from SSM/I data. Hiroyuki ENOMOTO and Hideo WARASHINA.
66. Sea-ice conditions off the Syowa Station between 1987 and 1994 —Discussions on the severe ice condition in 1993/94 summer—. Hiroyuki ENOMOTO, Hideo WARASHINA, Takashi SAITO and Takayuki SHIRAIWA.

*Sea ice

67. Ice production and convective mixing in the Antarctic coastal polynyas. Shuki USHIO, Takatoshi TAKIZAWA, Kay I. OHSHIMA and Toshiyuki KAWAMURA.